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Leadership: Dispositional and Situational

Bernard M. Bass
and
Francis J. Yammarino

ONR-TR-1
(Revision of CLS Report 88-5)

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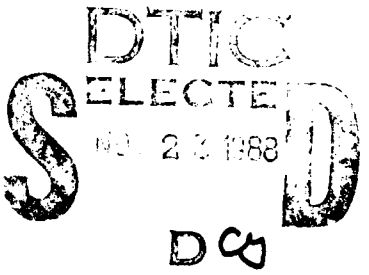

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For over four decades, leadership research has examined the issue of whether internal dispositions (traits), situational characteristics (contexts), or some combination of these, influence the behavior of leaders. After providing an integrative review of this literature, a clarification is presented by explicitly considering multiple levels of analysis in the conceptualization and testing of these views of leadership. Implications for future leadership research and managerial practice are discussed.

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Abstract

For over four decades, leadership research has examined the issue of whether internal dispositions (traits), situational characteristics (contexts), or some combination of these, influence the behavior of leaders. After providing an integrative review of this literature, a clarification is presented by explicitly considering multiple levels of analysis in the conceptualization and testing of these views of leadership. Implications for future leadership research and managerial practice are discussed.

Leadership: Dispositional and Situational

The person-situation debate has been a key issue in several areas of psychology and management for over two decades (Kenrick & Funder, 1988; Rowe, 1987; Schneider, 1983; Terborg, 1981). Essentially, the issue revolves around the importance in determining the behavior of people of internal dispositions (traits), situational characteristics (contexts) and/or some combination of these. Also important to know is whether they are nonadditive or reciprocal and in continuous interaction. A specific case of this more general issue is evidenced in the literature on leadership beginning with Plutarch's Lives (c.100 A.D.). Dispositional versus situational views of leadership and research have troubled countless scholars. The debate is over a century old as to whether history was made by "Great Men" or by "Great Times" (Bass, 1959).

The focus of this article is on dispositional and situational influences on leadership perceptions and behavior. The intent is not to create a new "dispositional-situational" model of leadership, but rather to provide an integrated review of the relevant literature and a clarification of it by explicitly including multiple levels of analysis. In particular, after reviewing dispositional and situational views of leadership as well as those which focus on both perspectives, levels of analysis issues are presented to clarify the various conceptualizations and to permit more rigorous empirical tests of these. Afterwards, implications for future leadership research and managerial practice are discussed.

Dispositional and Situational Views

Barber (1985), among others, has pointed out the striking differences in the leadership exerted by different occupants of the same potentially powerful position of U.S. President. Presidents can be as active as Lyndon Johnson or as passive as Calvin Coolidge. Even if they want to actively influence the course of events, they are much more likely to succeed if they make their attempts as early as possible and concentrate on just a few high priority issues. The times in which the office is held clearly make a difference. The 1950s may have been best served by a less active Dwight Eisenhower, whereas a more active Theodore Roosevelt might have created more problems than he would have solved.

Leaders are not merely reactive; often they change the situation to suit their own proclivities. Singh (1982) argues like Blake and Mouton (1964) that managers must avoid allowing the situation to so dominate them that normlessness results. Many of the world's most eminent leaders could not be deflected from their pursuits by environmental, organizational or collegial considerations. Furthermore, coincidental correlations between leadership attribute or behavior and situation are not uncommon. The link of direct or indirect causation of situation on leader or leader on situation needs to be established. Thus, organizational size itself may correlate with a more directive leadership style, but cannot account for it. Needed to confirm and understand the relationship are mediating organizational and psychological processes (Indik, 1965).

Much has been learned about how task demands and the characteristics of the immediate group members modify what type of leadership will occur. Less

well studied has been the impact of the external environment and the complex organization in which the tasks are accomplished and the leader's group is embedded. Yet, it is clear that the environment and the complex organization exert important effects on leader behavior. Changes in the complex organization and its external environment ordinarily will bring on changes in its leadership. As organizations mature, the charismatic founders of social movements usually give way to the bureaucratic successors. In the case of the union movement in the United States, unions fighting for recognition become established institutions which may move into a later stage of fighting for survival. In each stage, leadership requirements differ. The low paid, lower skilled immigrants with limited English who made up the work force of the steel union changed to a new generation of highly paid, skilled, English-speaking, better educated members. Leading them required new approaches. Patronage had to give way to persuasion.

Increasing attention has been devoted in recent years to these personal versus situational effects. Efforts have been theory-driven (e.g., Katz and Kahn's [1966] introduction of systems theory to the study of leadership and social interaction). Or, they have reflected societal changes (e.g., the sharp increase in government legislative intervention into the world of work and the relations among employers and employees).

Erroneous Attribution

When dispositional versus situational factors in leadership are considered, usually reference is made to Stogdill's (1948) review of 124 studies up to 1948, a large percentage of which were about child and adolescent leaders. But often Stogdill is incorrectly reported as concluding from his review that the effects of personality traits were irrelevant and

that the situation was paramount. In fact, his conclusion was quite different. He actually concluded that there was a considerable array of dispositional factors associated with emergence as leaders and how successful they are. These include individual differences in capacity (intelligence, alertness, verbal facility, originality and judgement), achievement (scholarship, knowledge, athletic accomplishments), responsibility (dependability, initiative, persistence, aggressiveness, self confidence and the desire to excel), participation (activity, sociability, cooperation, adaptability and humor) and status (socioeconomic positions and popularity).

However, he further concluded that the particular problem of personal characteristics of the leader had to bear some relevant relationship to the characteristics, activities, and goals of the followers.

> "It is not especially difficult to find persons who are leaders. It is quite another matter to place these persons in different situations where they will be able to function as leaders. It becomes clear that an adequate analyses of leadership involves not only a study of leaders, but also of situations." (Stogdill, 1948, p. 65.)

Erroneous Conclusion

To test the situationalist view, Barnlund (1962) varied both the task and member composition of groups and computed the correlation of leadership attained in one group with the average leadership attained in all other groups. Barnlund concluded that emergence as a leader varied across the situations and that there was little dispositional in the emergence. But Kenny and Zaccaro (1983) completed a more sophisticated analysis of Barnlund's

data and showed that between 49% to 82% of the variance in the emergence of leadership could be attributed to some stable characteristic of the individuals involved. It was speculated that this characteristic, rather than being a traditional personality trait, may actually have been due to a complex cognitive-behavioral syndrome. Closer to Stogdill's actual position, Kenny and Zaccaro felt that the stable characteristic contributing to emergence as a leader involved the ability to perceive the needs and goals of a constituency and accordingly to be flexible in approach to group action.

A Tautological Matching

Situational demands and personal attributes of the leader must both be considered in trying to understand the likely effectiveness of the leader, but the leader-situation taxonomic analysis may appear somewhat like a tautology, or like Ashby's Law of Requisite Variety (1956), in that the appropriate leadership is that which serves to fix, or to get others to fix, whatever is malfunctioning, or is less than optimum in the situation. Thus, Nebeker and Mitchell (1974) found that differences in leadership behavior could be explained by the leader's expectations that a certain style of leadership would be most effective in a particular kind of situation. Furthermore, differences in the success of 310 British and U.S. managers, as evidenced by their salary progression-age ratios in 28 different company environments, were found associated with the extent to which the managers' achievement-orientation matched the company's support of management risk taking. On the other hand, other matches of orientation and the company situation which were expected to make a difference in the managers' advancement, failed to do so (Ansari, Baumgartel & Sullivan, 1982).

O'Connor and Farrow (1979) demonstrated the importance for satisfaction

of matching the amount of structure required by research and production managers and the preferences of the managers. Again, more political behavior was seen by managers in organizations lacking in structure, with much ambiguity about goals and processes, and with a great many technological uncertainties (Allen, Madison, Renwick, & Mayes, 1979; Madison, Allen, Porter, Renwick, & Mayes, 1980).

Sydney Hook (1943) pointed out that Napoleon had options when he was exiled off the Italian coast on Elba as he was almost a free agent. No doubt dictated by his personal drive for dominance and the tempting offshore location, he took his option for one last 100 day fling at restoration to power. But on St. Helena, in the South Atlantic, the British imprisoned him in a way that situationally dictated that he would never return to France again.

Trait Versus Situation

The dispositional approach is not enough for understanding leadership. Above and beyond personal attributes of consequence to attempts, success and effectiveness as a leader, the situation can make a difference although some types of leadership are reported and/or expected of leaders in all situations. Many other leader behaviors are more specific to particular types of situations (Hemphill, 1950). For example, James and White (1983) in a study of 377 Navy managers found support for cross-situational specificity (not consistency); i.e., managers' perceptions of subordinate performance, attributions, and leader behaviors varied as a function of situations. Moreover, according to a survey by Hemphill, Siegel, and Westie (1951), when the group has a high degree of control over its members, the leader was expected to dominate and actually did so. Contrarily, in groups whose

members participated to a high degree, these expectations and reports of domination did not occur.

As pointed out by Bass (1960), some leader behavior is a function of individual dispositional differences; other leader behavior appears to depend mainly on situational differences; and some depends on the interaction of individual and situation. What is required for leadership in a stressful situation is likely to differ from what is needed in a calm and steady circumstance. For a given leader in one situation or the other, some subordinates are likely to be more experienced, more motivated, or better adjusted than others to their situation. The leader may need to deal differently with the differing kinds of subordinates. But it also would appear to be true that some people will never take the lead no matter what the situation whereas there are the so-called "born" leaders who take over in almost any circumstance. Most everyone else falls in between, taking on a leadership role in some situations but not others.

Reviews

W. O. Jenkins (1947) reviewed a large number of studies indicating that the traits required in a leader are related to demands of the situation. Stogdill (1948) listed 124 studies to suggest that the patterns of traits associated with leadership differ with the situation. For example, Sward (1933) observed four kinds of leadership on a college campus: leadership of the newspaper, leadership in debate, leadership in campus politics, and leadership by women. The 125 campus leaders were characterized as follows: (1) bright, relatively unmotivated, unsocial, self-confident campus editors; (2) rather insecure, intellectual, very intelligent debaters; (3) strongly socialized, intellectually mediocre campus politicians; and (4) extroverted

women leaders. Stogdill concluded after reviewing the 124 studies that "if there are general traits which characterize leaders, the patterns of such traits are likely to vary with the leadership requirements of different situations."

Theories and Models

The Hersey-Blanchard (1969) situational leadership model placed a premium on subordinate maturity in determining what leadership style is appropriate. Even Blake and Mouton (1964) would agree that how 9-9, the integrated highly task-and-relations orientation manifests itself in a leader's behavior, will depend on a subordinate's maturity.

There has also been considerable attention paid to Fiedler's (1967) contingency model. Relations-oriented leadership is optimal when the situation is neither highly favorable nor highly unfavorable to the leader in terms of his or her esteem, power, and the situation's structure; task-oriented leadership is optimal when the situation is either highly favorable or highly unfavorable to the leader.

Empirical Analyses

DuBrin (1963) found that a leadership inventory consisting of both trait and situational items correlated significantly with a leadership criterion, whereas neither set of items alone was significantly related to the criterion. Again, O. L. Campbell (1961) reported significant differences between leaders in eight different situations when described on the consideration and initiating structure scales of the Leader Behavior Description Questionnaire (LBDQ).

Vecchio (1981), among many others, concluded from an analysis of LBDQ data from 107 subordinates describing their supervisor that a matching of

leader style to subordinate and work setting needs yields maximum subordinate satisfactio.. with the leadership, although not necessarily with other aspects of the situation, such as with the job or the working conditions. Such matching was seen as the reason why although each of four CEO's displayed a different pattern of traits, all four emerged as effective leaders in their four differing organizational cultures (Free, 1983).

Bass and Barrett (1981) detailed how leaders' tendencies to be directive or participative were likely to depend on their organization's external environment, their organization's structure, the composition of their subordinate group and the task they are managing as well as their own personal attitudes, beliefs, and needs.

Transfer Studies

Stogdill's (1951b) study of transferred naval officers suggested that some behavior of the transferee in the new situations was characteristic of himself rather than of the position. This included his tendency to delegate authority; to spend time in public relations; to evaluate, read, and answer mail; to read technical publications; and to spend time with outsiders. Other behavior, more a matter of demand by the situation, included the amount of time the transferred officer spent in personal contact; the amount of time spent with superiors; and the amount of time spent in supervision, coordination, and in writing reports.

Examples of Flexible Requirements

According to Kerr, Schriesheim, Murphy, and Stogdill (1974), among the situational variables found to determine whether initiation of structure and/or consideration yielded satisfaction and productivity, were subordinates' need for information, their job level, their expectations of leader behavior,

and their perceived organizational independence. Also important were how similar the leaders' attitudes and behavior were to the managerial style of higher management, and the leaders' upward influence. In addition, task effects were significant, including whether there were pressures to produce and provisions for intrinsic satisfaction.

Yukl (1981) specified for 19 leader behaviors, the situations in which they would be most essential. For the task-oriented behaviors, for instance, Yukl suggested that performance emphasis by leaders is needed more when subordinate errors and quality deficiencies are costly and difficult to correct, or they would endanger the health and lives of people. Leaders can better structure reward contingencies when it is possible to measure subordinate performance accurately. More role clarification is desirable when the organization has elaborate rules and regulations, and subordinates are not familiar with them. Goal setting by leaders is more effective when performance outcomes are highly dependent on subordinate effort and are not strongly affected by fluctuating conditions beyond the control of subordinates. Information dissemination from the leadership is most important when the work of subordinates is strongly affected by developments in other parts of the organization, and subordinates are dependent on the leader to keep them informed about the developments. Work facilitation by leaders is required more when shortages of inputs or inadequate support services would result in serious and immediate disruption of the work.

A number of relations-oriented leader behaviors are also prescribed by Yukl (1981) for particular situations. The need for more consideration by the leadership occurs according to Yukl when the leader works in close proximity to subordinates and/or must interact frequently with them due to the nature of

the task. Praise and recognition by the leader become more important when subordinates are not able to get much direct feedback about their performance from the work itself or from clients, customers, or coworkers. Interaction facilitation by the leadership is essential when the organizational unit is large, and it contains competing groups or factions.

Bass (1981) reviewed the organizational and environmental factors external to the organization that influence leader-subordinate relations inside the organization as well as the interacting effects of group composition, task, network structure, stress and other situational factors of consequence. Particular attention was paid to the situational and dispositional factors likely to contribute to the occurrence of transformational leadership (Bass, 1985). Transformational leadership was expected to occur when the leader was personally self-confident and self-determined and had strong ego ideals. Gibbons (1986) found transformational leaders more likely to have come from families with strong educational standards and gained leadership experience as adolescents. Nevertheless, Bass (1985) suggested that situational factors are also important. Transformational leadership was expected to arise more likely in organizations in turbulent markets and unstructured environments, at times of crisis and distress, and in organic rather than mechanistic organizations. However, data gathered from a variety of industrial, military and not-for-profit organizations suggest that the positive effects of transformational leadership factors are somewhat insensitive to situational differences. But the effects of transactional leadership factors are much more likely to depend on the situation (Bass & Avolio, 1988).

Towards a Full Account

Any full account of dispositional and situational factors requires an assessment of the percentage of variance in leadership behavior and the percentage of the covariance effects of the leadership on performance and satisfaction associated with the leaders across situations, across the groups led, and to the individual leader-follower relationships within the groups led. Thus, for 116 insurance agents in 31 work groups, Yammarino, Dubinsky, and Hartley (1987) showed that 28 percent of the between-covariance of subordinates' and supervisors' reports about subordinate performance was attributable to the differences among the work groups and their differing leaders. Additionally, 14 percent of the within-covariance was attributable to differences among the subordinates within the work groups led by the same supervisor. For a sample of 83 retail sales associates in 26 work groups, only 14 percent of the between-covariance could be attributable to differences across the groups while seven percent of the within-covariance was due to supervisor-subordinate relations within the groups. Moreover, Yammarino, et al. (1987) found that in the insurance sample the average within- and between-groups variance in leadership for the measures was 68% and 32%, respectively; while in the retail sample the variances were 66% and 34%, respectively.

The "Varient" Approach

Although it is recognized that the impact on leadership and its outcomes is a function of internal dispositions, situational characteristics, as well as their combination, nonetheless the specific ways in which each of these emphases are appropriate for understanding leadership remains unclear. A key reason for this state of affairs is that the issue of multiple levels of

analysis from both conceptual and empirical perspectives has been largely ignored in this line of research (Bass, 1981; Glick & Roberts, 1984; Roberts, Hulin, & Rousseau, 1978). To clarify the dispositional and situational views in leadership research, the "varient" approach developed by Dansereau, Alutto, and Yammarino (1984) can be used. In particular, by explicitly focusing on multiple levels of analysis in theory formulation and data analysis, strong inferences can be drawn to better understand these views from conceptual and empirical perspectives.

This approach is compatible with and extends conceptual (Lerner, 1963; Miller, 1978; Roberts, et al., 1978) and data analytic (Glick & Roberts, 1984; James, Demaree, & Hater, 1980; Pedhazur, 1982; Robinson, 1950) work on multiple levels of analyses and cross-level inferences in a variety of disciplines. Because such work should begin with theoretical/substantive issues (Glick & Roberts, 1984; James, Joyce, & Slocum, 1988; Miller, 1978), a "varient" conceptualization of dispositional and situational views is presented before dealing with multiple-level empirical issues using Within and Between Analysis (WABA). An alignment of conceptual and empirical conditions is also developed. For the purpose of this discussion, several views of dispositional and situational approaches to leadership can be integrated by focusing on five general models summarized in Table 1. These conceptual and empirical specifications include multiple levels of analysis using the "varient" approach.

Insert Table 1 about here

Conceptualization

Dansereau et al. (1984) distinguish conceptually between whole and parts views of entities (a level of analysis). A whole view is defined as a focus between entities but not within them. Differences between entities are viewed as valid and interpretable, and differences within entities are viewed as error or irrelevant. A parts view is defined as a focus within entities but not between them. Differences within entities are valid, and differences between entities are erroneous. These two views are conceptually different ways to indicate that a focal level of analysis, as such, is relevant for understanding leadership behaviors.

Two Models. From a dispositional perspective, when the leader is the level of analysis, this conceptualization suggests two ways to view the characteristics of a leader. First, in terms of a between leaders or the wholes view, leaders can display inter-individual differences. For example, collecting multiple measures from a leader over time on a characteristic or behavior would show stability; other leaders can also display such stability on the characteristic of interest. Second, in terms of a within leaders or the parts view, leaders can display intra-individual differences. Thus, for instance, collecting multiple measures from leaders over time on a characteristic would display consistent differences among the measures or occasions for different leaders. These can be thought of as two different models of the way that independent leaders behave or cognitively process information.

From a situational perspective, a work group can be viewed as a type of situation or context, and thus, as another level of analysis. Two views are again plausible. In terms of a between groups or the wholes view, a group can

display a consistent set of behaviors or cues toward a leader or have a homogeneous attitude about a leader and this consistency may be seen in other groups. In contrast, in terms of a within groups or the parts view, subordinates within a group can display differential behaviors or cues toward a leader or hold different attitudes about a leader. These can be thought of as two different models of group processes or the group situation.

When leaders are placed in these groups (or situations), two key leader-situation views of the relationship between leaders and subordinates are plausible. First, in terms of a between-leaders-and-groups or the wholes view, a leader may have a similar relationship with each subordinate in a group, thus displaying a style of leadership toward the entire group. Leaders' styles would differ from group to group. Collecting information from leaders about their relationship with each of their subordinates, as well as information from the subordinates about their relationship with their leader, and matching these reports would display between-leader and between-group differences. Second, in terms of a within-leaders-and-groups or the parts view, a leader may have a different relationship with each subordinate in a group, thus changing the quality of the relationship from subordinate to subordinate. Other leaders can also display this heterogeneity in style toward subordinates. Collecting matched information from a leader and his or her subordinates would display within-leader and within-group differences. These can be thought of as two different models of leader-group relationships.

Overall, a between-leaders dispositional view, a between-groups situational view, and a between-leaders-groups relationship view, is compatible with the <u>average leadership style</u> (ALS) approach (Kerr & Schriesheim, 1974; Schriesheim & Kerr, 1977). In contrast, a within-leaders

dispositional view, a within-groups situational view, and a within leaders-groups-relationship view, is consistent with the leader-member exchange (LMX) approach (Dansereau, Graen, & Haga, 1975; Graen, Novak, & Sommerkamp, 1982). In the ideal cases, leader reports, subordinate reports, and mutually paired leader-subordinate reports about leadership would indicate wholes or between-effects in the ALS case, while in the LMX case, parts or within- effects would be evidenced (see Table 1).

Additional Possibilities. Several other dispositional and situational views of leadership can be integrated when other levels of analysis are considered. For example, interpersonal relationships independent of the group context are often of interest. These one-to-one relationships occur when two persons are interdependent. Although each person has his/her own dispositions, interdependence is the basis of a person-person dyad (Bersheid, 1985). In leadership research, the leader-subordinate dyadic relationship is of interest. In terms of a dyad level of analysis, as distinct from dyads within a group, independent dyads not influenced by group membership can be viewed in two ways according to Dansereau, Alutto, & Yammarino (1984). Two different models can be used to analyze dispositions of the two interacting persons. First, in terms of a between-dyads or the wholes view, a leader-subordinate relationship can be balanced or composed of similar individuals. As a homogeneous entity, some leader-subordinate dyads display stronger relationships than others; persons' dispositions within a dyad are similar. Second, in terms of a within-dyads or the parts view, a leader-subordinate relationship can be unbalanced or composed of dissimilar individuals. As a heterogeneous entity, the persons who comprise a dyad display different dispositions.

The first model is compatible with the notion of balanced interpersonal relationships (Adams, 1965; Byrne, 1971), while the second model is consistent with the idea of unbalanced interpersonal relationships (Bersheid, 1985; Hollander, 1985). In the ideal cases, matched reports from leaders and subordinates about leadership would indicate wholes or between-effects and parts or within-effects, respectively, for these two models (see Table 1).

Higher Levels of Analysis. Turning from these two-person dispositional-type models, other situational views of leadership can be considered when contexts beyond work groups are the focus. Specifically, because persons, dyads, and groups are embedded in higher levels of analysis, other contexts or situations can influence leadership. These higher levels of analysis, or collectivities, may be departments or functional areas in organizations, industries, economies, regions and countries. Because of the numerous possibilities, for the purpose of this discussion, two general types of higher level situational views are presented.

First, the same view of leadership may be identified in more than one or all situatic - of interest. Dansereau et al. (1984) have labeled this a multiplexed model, compatible with James and White's (1983) notion of situational consistency. In this case, for example, balanced interpersonal relationships and between-dyads differences or wholes-effects can be identified in multiple departments or organizations. Second, a particular view of leadership may be identified in one or some but not all situations of interest. Compatible with the literature on contingent leadership (Bass, 1981) and James and White's (1983) notion of situational specificity, Dansereau et al. (1984) have labeled this a contingent model. In this case, for example, balanced interpersonal relationships and between-dyads

differences or wholes-effects can be identified in staff but not line departments, or in service but not manufacturing organizations. In the ideal cases, matched reports from leaders and subordinates about leadership would indicate different effects in multiple situations for the contingent view and similar effects in multiple situations for the multiplexed view (see Table 1).

Empirical Specification

A way to illustrate empirically these conceptualizations of dispositional and situational leadership is to specify ideal correlations predicted from each model. As indicated by Robinson (1950) and Pedhazur (1982), however, the fully composed raw, total correlations are ambiguous for determining effects that involve multiple levels of analysis. To address the deficiencies of using solely raw correlations, Dansereau, et al. (1984) present a more rigorous technique, Within and Between Analysis (WABA).

WABA. In WABA, within and between cell indicators are calculated and compared relative to one another with tests of statistical and practical significance. Cells for analyses are aligned with entities representing the levels of analysis. Raw scores on variables are partitioned into within and between cell deviation scores. For example, the partitioning of scores on variables can generate within- and between-person, within- and between-dyad, and within- and between-group scores for analyses. Several correlations are then computed from these scores.

Specifically, the correlations which result from a set of within- and between-cell scores for two variables, X and Y, representing leadership dispositions are summarized as follows:

$$\eta_{BX}\,\eta_{BY}\,r_{BXY} + \eta_{WX}\,\eta_{WY}\,r_{WXY} = r_{TXY}\,, \qquad (1)$$

where η_{BX} and η_{BY} are the between-cell etas for variables X and Y,

respectively; η_{WX} and η_{WY} are the within-cell etas for variables X and Y, respectively; r_{BXY} and r_{WXY} are the between- and within-cell (unit) correlations, respectively, between variables X and Y; and r_{TXY} is the raw correlation between variables X and Y. Equation 1 is the WABA equation which specifies that any raw correlation has two mathematically based components: a between cell component ($\eta_{BX}\ \eta_{BY}\ r_{BXY}$) and a within cell component ($\eta_{WX}\ \eta_{WY}\ r_{WXY}$).

The correlations that constitute the components are of two types: etas, which focus on single variables, and unit (cell) correlations which specify relationships among variables. In an empirical sense each variable, X or Y separately, can display variation and valid differences or show itself to be constant and with differences due to error only within and between cells. Within (η_W)- and between (η_B)- cell etas are used as indicators of variation or lack of variation and are tested relative to one another to draw conclusions. The relationship between the two variables, X and Y, can be systematic with valid differences or non-systematic and with differences due only to error within and between cells. Within (r_W)- and between (r_B)- cell (unit) correlations are used as indicators of systematic or non-systematic covariation and are tested relative to one another to draw conclusions.

Ideal Results. If the results of the testing procedures indicate that variation and covariation are more likely between than within cells, then the variables and relationship are relevant for whole entities at a particular level of analysis. In the ideal case, the between-cells etas for X and Y, as well as the between-cell correlation, would equal one ($\eta_{BX} = 1$, $\eta_{BY} = 1$, $r_{BXY} = 1$) and the within-cell etas and correlation would be zero ($\eta_{WX} = 0$, $\eta_{WY} = 0$, $r_{WXY} = 0$). Thus, the between-cell component equals one, the within-cell

component is zero, and a raw correlation of one results ($r_{TXY} = 1$) (see equation 1).

In contrast, when within rather than between cells variation and covariation are more likely, the variables and relationship are applicable in terms of entities viewed as parts. In the ideal case, the within-cell etas for X and Y, as well as the within-cell correlation, would equal one ($\eta_{WX} = 1$, $\eta_{WY} = 1$, $r_{WXY} = 1$) and the between-cell etas and correlation would be zero ($\eta_{BX} = 0$, $\eta_{BY} = 0$, $r_{BXY} = 0$). Thus, the within-cell component equals one, the between-cell component is zero, and a raw correlation of one results ($r_{TXY} = 1$) (see equation 1).

These ideal correlations provide one way to illustrate the ambiguity of raw correlations. In the two cases above, the raw correlations equal one, yet the actual effect was wholes (between and not within) in the first case and parts (within and not between) in the second case. In both cases, the component correlations and between and within cell components clarify the raw correlations. Ideal correlations based on leader, subordinate, and cross-rater reports can be generated at multiple levels of analysis using the above WABA procedures (see Table 1).

Conceptual-Empirical Alignment

The one-to-one alignment of ideal correlations with conceptual models of dispositional and situational leadership using multiple levels of analysis is shown in Table 1. For the models in the left portions of the table, a conceptual clarification is provided by explicitly specifying the leader, dyad, and group level of analysis that is often assumed or implicit in the literature. The ideal correlations at each of these levels of analysis associated with the conceptualizations are illustrated in the right portion of

the table. The central position of levels of analysis in the table highlight their importance in both conceptualization and empirical testing procedures.

Using this "varient" approach in theory formulation and data analysis, Markham (1988) and Yammarino and Naughton (1988) have found support for the ALS model (between persons and groups or wholes) in terms of pay-for-performance and communication variables. In contrast, in terms of attention, satisfaction, and employee withdrawal processes, Markham, Dansereau, Alutto, and Dumas (1983) and Ferris (1985) found support for the LMX model (within persons and groups or parts). Dansereau, et al. (1984) and Yammarino (1983), employing the "varient" approach, examined several investments and returns among leaders and subordinates, and provide evidence for a contingent model of balanced interpersonal relationships or between dyads effects (wholes) in the support staff but not in the line production areas of organizations. These findings highlight the importance of variables and the individual, group and organizational levels of analysis for clarifying and integrating dispositional and situational views of leadership. More detailed explanations of single- and multiple-level conceptualization processes, WABA correlations and tests, and "varient" inferential procedures are developed and illustrated in Dansereau, et al. (1984). Due to space limitations the ideas presented here and summarized in Table 1 are a simplification and represent only five general models of dispositional and situational leadership.

Discussion

Implications for Research

A variety of issues for future research in leadership and related areas can be unfolded from the review and approach presented in this paper. First, it is not just a matter of personal disposition and situational demand. There

are many levels of analysis to be considered both theoretically and empirically in terms of the leader's disposition and the situation faced. The leader's dispositional tendencies may be interacting with those of individual subordinates, colleagues, or clients. The interaction may be with whole groups, whole departments or whole organizations, or with the larger culture or society. The resulting variance in leadership behavior and covariance with outcomes can be quite different and multiple levels of analysis are necessary to gain fuller understanding of the "leadership" phenomena. While the leader's rewarding behavior is likely to be public and known equally to the entire group of his or her subordinates, his or her disciplinary actions are more likely to be private and individualized. Thus, such dispositions to reward and punish may involve different levels of analysis. The additional consideration of the situational context raises further level of analysis possibilities.

Second, theories need to be constructed which explain the different results which can occur at different or multiple levels of analysis. For example, why should managers praise publicly and reprimand privately? Observing others being reprimanded may have salutary effects. From an empirical perspective, many hypotheses have been tested at only one level of analysis. For example, equality may make sense for relations with groups; equity may be more important in relations with individuals in dyadic relationships. Clearly, additional empirical tests of presumed well-established ideas are necessary at other levels of analysis.

Third, more care is needed in meta-analysis to avoid inappropriate mismatching of data collected at different levels of analysis which is being summarized. Mixing leader-group outcomes with dyadic leader-individual

outcomes and leader-organizational outcomes may result in inflated variations in results.

Fourth, in field studies, where data comes from different units, complete statistical control can be provided to either eliminate or account for the wanted and unwanted situational sources of variance and covariance. In the laboratory, manipulations may be considered so as to either control or provide independent and dependent sources of variance and covariance. Thus, in both lab and field studies, theoretical ideas which include different levels of analysis can be tested empirically using multiple-level statistical procedures.

Fifth, the reliability and validity of measurements may be found to differ in terms of multiple levels of analysis. Collection of data at one or more levels, and analyses of these data at multiple levels, provides another perspective on measurement issues. For example, a complete Within and Between Analysis at multiple levels of racial and sexual differences may pinpoint just where and when test-criterion conclusions are affected by considerations of minority or female status.

Sixth, levels of analysis in conjunction with longitudinal studies would give a full accounting of the levels at which changes or stability are occurring and effects are important. For example, strong variances and covariances in leader-outcome relations might appear among new recruits at a dyadic level of analysis which could disappear when the recruits had gained experience and if they worked as part of a larger functional unit such as a work group or department.

Seventh, systematic explanations could be specified and investigated to see at what levels of analysis cognitive or behavioral effects are stronger.

Individual differences in information processing or dyadic explanations of leadership are likely to be greater when the leader's effects are whatever is "in the eye of the beholder." In contrast, other leader effects may be evidenced in terms of entire groups, say for instance, with highly active leaders. Or, the leader effects might reflect an organization's culture, say as a consequence of an mandated participative style.

Eighth, possibilities can be entertained for crossing the boundaries from physiology and psychology to social psychology, sociology, and political science dealing with the same leaders and outcomes. In terms of multiple levels of analysis, theory formulation and data analysis in leadership research could be enhanced by involving all these disciplines each of which tends to specialize at one level of analysis.

Implications for Managerial Practice

Some key issues for managerial practice can also be gleaned from the previous discussions. First, managers need to avoid assuming that there is one best way which works. The issue of multiple levels of analysis highlights the fact that what is a hindrance for the group may be an enhancement for the individual. For example, pay satisfaction may depend on feelings of equality in reference to others within one's own group and feelings of equity with a reference group and those at broader levels. Further, components of pay can be broken into one's independent contribution, contribution within one's group and department, and one's contribution to the larger organization. As such, multiple levels of analysis effect pay and satisfaction with it. In contrast, some issues such as safety may be organization-wide affairs; others such as educational opportunities may be most relevant to certain subsets of personnel or units.

Second, in diagnosis of whether ability, training or motivational increases are needed for productivity improvements, or whether resource and facilities changes are needed, a more sophisticated examination becomes possible in that analyses can be completed to tease out the relative contributions of the different effects. Thus, multiple levels of analysis issues should be of concern in managerial policy formulation and implementation. Training programs, selection devices, planned change, and resource allocation, all require an assessment of the levels of analysis involved and the influences of levels on the desired outcome. For example, Markham (1988) showed that what is often presumed by management to be an individual level policy of rewarding the individually meritorious employee is actually more often a work group based managerial practice of giving pay raises to meritorious groups.

Third, time and timing of managerial practices are critical and depend on levels of analysis. For example, extended training of individuals in the short run may lead to higher group performance in the long run. The diurnal cycles of individuals may enhance or inhibit the work group. For example, a manager who assigns a tight deadline to a team project may miss the goal because of time constraints on some but not all of the individuals in the group.

Conclusion

Whether from the perspectives of research or practice, simply focusing on dispositional, situational, or dispositional-situational views of leadership will not suffice. Rather, for the researcher, theory formulation and data analysis must explicitly include multiple levels of analysis. For the practicing manager, policy formulation and implementation can profit from

consideration of multiple levels of analysis. The integrated review and the "varient" approach presented in this paper is intended as a first step in these directions to more fully address multiple dispositional and situational issues in leadership research and practice.

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Table 1

Person and Situation Models of Leadership: Conceptual and Empirical Conditions

Models of Leadership	Levels of Analysis	Ideal Correlations						
		Between			Within			Total
		η_{BX}	η_{BY}	r_{BXY}	η_{WX}	η_{WY}	r_{WXY}	r_{TXY}
Average Leadership Style (ALS)								
Leader	Between Leaders (Wholes)	1	1	1	0	0	0	1
Group (or Situation)	Between Groups (Wholes)	1	1	1	0	0	0	1
Leader-Group	Between Leaders-Groups (Wholes)	1	1	1	0	0	0	1
Leader-Member Exchange (LMX)								
Leader	Within Leaders (Parts)	0	0	0	1	1	1	1
Group (or Situation)	Within Groups (Parts)	0	0	0	1	1	1	1
Leader-Group	Within Leaders-Groups (Parts)	0	0	0	1	1	1	1
Interpersonal Relationships								
Balanced Leader-Subordinate	Between Dyads (Wholes)	1	1	1	0	0	0	1
Unbalanced Leader-Subordinate	Within Dyads (Parts)	0	0	0	1	1	1	1

Table 1 (Continued)

Models of Leadership	Levels of Analysis	Ideal Correlations: Between η_{BX}	Between η_{BY}	Between r_{BXY}	Within η_{WX}	Within η_{WY}	Within r_{WXY}	Total r_{TXY}
Contingent Model								
Situation								
1. Balanced Interrelationships	Between Dyads (Wholes)	1	1	1	0	0	0	1
2. Lack of Relationships	Level Other than Dyads	-	-	-	-	-	-	-
Multiplexed Model								
Situation								
1. Balanced Interrelationships	Between Dyads (Wholes)	1	1	1	0	0	0	1
2. Balanced Interrelationships	Between Dyads (Wholes)	1	1	1	0	0	0	1

Note: Portions of this table were adapted from Dansereau, Alutto, and Yammarino (1984).

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